

## Strategy - Advance Street Name Plaques/Signage for Improved Driver Navigation

### General Description

With the continued increase in travel and development along North Carolina's streets and highways, and the continued influx of newcomers to the State, and the increasing average age of North Carolina's driver population, simple low-cost navigational aids can improve driver behavior and performance in advance of select signalized and unsignalized intersections. Supplemental Street Name Signs have been effectively used to provide motorists with advance notification of upcoming intersections. This early warning of upcoming intersections benefits the driver in terms of lane selection and positioning, heightened awareness for intersection decision points, and re-assures the navigating driver. While too many signs may create "information overload" for the driver, supplemental advance street name signs provide an important aid for both the traveling public and emergency responders.

### ADVANCE STREET NAME SIGN PLAQUE (EXAMPLES)



## ***Technical Attributes***

Target	Less familiar, older drivers, and moderately distracted drivers who are navigating along a corridor with a specific destination or navigating via referencing crossing streets. Intent is to provide advance information at select locations that will help direct the motorist and re-assure the navigating motorist. Lane selection and maneuvers should take place in advance of an intersection thereby reducing vehicular conflicts and friction that often occurs when an operator fails to recognize they have reached their destination. The operator may then attempt a last second lane change or misses the turn entirely and then resorts to a more difficult legal or illegal recovery maneuver beyond the intersection. This strategy targets increasing safety for very experienced, distracted and less familiar drivers.
Expected Effectiveness	As with any signing treatments, effectiveness can be difficult to measure. Experience indicates advance signs, both street name and lane use, do provide a valuable information and navigational aid to the traveling public, and emergency service first responders. Overall sign proliferation and visual noise would likely reduce the visibility of these signs, but properly utilized these supplemental sign plaques can help guide travelers through confusing locations as well as complex intersections. Provided these installations are based on engineering study and conform with approved practices, these devices would be expected to have a very positive preventative safety and operational effect and a positive response from the traveling public.
Keys to Success	<p>Overall Control of Non/Less-Useful Signs (preventing/correcting sign proliferation)</p> <p>Avoid-Over or Non-Conforming Use of Advance Street Name Panels (Example insufficient Street Name text size on W3-3 Installations along NC 55 ByPass (Around Holly Springs). Avoid temptation to install an unneeded Signal Ahead sign just so a plaque can be provided.</p> <p>Develop and Implement (includes delivery of training) Solid Guidance and Practices for Advance Street Name Sign Plaques and Sign Panels in TEPPL.</p> <p>Requires support by municipalities, Traffic Engineering Branch, Division Operations and Traffic Services personnel. With the risk of over –redundancy – practitioners must emphasize that this is not appropriate nor is it intended for all intersections.</p> <p>Consider and Encourage appropriate and limited use of Advance Street Name Signs, D3-2 in those locations that don't currently have, need, or justify "Signal Ahead" or "Intersection Ahead" signs.</p> <p>Two additional but Separate Candidate Strategies that are promising and that could be considered as companion intersection information and driver aid strategies are the (1) Lane Control Signs and Markings for Improved Driver Navigation and (2) the Use of No Outlet Designations on Street Name Panels (that are clearly visible from mainline). This later potential strategy should be a County Responsibility and is in response to and more often associated with neighborhood intersections and the behaviors introduced when motorists enter a neighborhood and then encounter dead end or no outlet signs. The idea behind the street name "No Outlet" panel is to prevent the un-intended entry and reduce the cut through and turn arounds in the intersection throat.</p>
Potential Difficulties	Funding and Resources for New Installations and continuing Maintenance of Additional Signs. Adjacent sign proliferation and limited rights of way could preclude traditional shoulder mount applications/installations. TEXT size must be sufficient for motorists to read at travel speeds and without undue distraction. Consistent application is important for maximum effectiveness. Sign spacing and sight distance requirements. Signal Ahead Signs and Intersection Ahead Signs are not at all intersections and the use of D3-2 type signs (see page 4) should be considered as a companion to this approach/strategy. Development of guidance and criteria concerning the approaches that can be applied to guide placement (corridor based, location specific, phase-in, systemic) is necessary.

Appropriate Measures and Data	<p>Intersection sideswipe and rear end crashes could be looked at as potentially being impacted by appropriate application of this strategy. Operator behavior, while difficult to assess, should improve through the positive re-assurance and guidance provided in advance of decision points, especially at high volume (or Primary Route) locations. Installation dates would need to be recorded for evaluation purposes. Locations with over-representation of incidents involving very experienced and/or unfamiliar (non-local) operator incidents would be an important, and logical, starting place for this countermeasure. Both Primary Corridor and Primary Route Spot Specific approaches could be utilized in determined need and performing engineering analysis.</p> <p><b>MUTCD</b> Reference Page 2C-24 (Section: 2C.49) <i>Advance Street Name Plaque (W16-8, W16-8a) Option: An advance Street Name (W16-8 or W16-8a) plaque (see Figure 2C-11) may be used with any Intersection sign (W2 series) or Advance Traffic Control (W3 series) sign to identify the name of the intersecting street.</i></p> <p>Older Driver Highway Design Handbook Section I Intersection (at-grade) J. Street Name Signage: SEE PASTED INFO BELOW</p> <p>SOURCE LINK SEPTEMBER 6 2005 from:  <a href="http://www.its.dot.gov/edldocs/7284/home/index.html">http://www.its.dot.gov/edldocs/7284/home/index.html</a></p>
Associated Needs	<p>TEPPL Practice  NC Supplement  Recommended Letter Sizes and Recommended Fonts and Material (Sheeting and hardware attachment) Specifications</p>
Organizational, Institutional, and Policy Issues	<p>Primarily Internal Policy/Practice Issue. Can be effectively implemented through Operations and Traffic Engineering. Guidance for site selection and application will be critical as intent is not global installations but rather selective installations based on engineering recommendation and determination of actual need.</p>
Issues Affecting Implementation Time	<p>Implementation time will be dependant upon criteria established for usage and the availability of funding and manpower resources for the installation, and maintenance of the supplemental sign panels.</p>
Costs	<p>Supplemental Panel Costs (investigation, design, material, fabrication, installation, and maintenance). Development and roll out of associated TEPPL Practice, staff training, and public outreach will require primarily manpower resources and engineering development and training time to accomplish. Implementation will include costs associated with developing and preparing sign designs, procurement of the signs, as well as delivery and installation for the signs. Additional costs could be associated with collection and evaluation of “Before and After” data in order to document actual cost benefits derived from the new practice.</p>
Training	<p>Range: Approximately \$100 to \$250 per Intersection (Installed) for simple Advance Street Name Panel Additions.</p> <p>Development of Official TEPPL Practice and subsequent distribution through Executive Committee, Traffic Engineering Roundtables, and TEPPL Web Site, and Other Opportunities such as Operations Staff Meetings and Traffic Engineering and Traffic Services Conference in 2006. Some outreach could be beneficial through public service type announcements and inclusion into sign guides for driver manuals and examinations.</p>
Legislative Needs	<p>None Expected to be Required for Limited Implementation on a Case/Location Specific Basis – For a more systemic approach recurrent dedicated funds would be required (investigation, design, fabrication, installation &amp; maintenance).</p>

*Figure 2D-8. Street Name and Parking Signs*



OR



OR



D3-2